EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2.   Authorization for this examiner's amendment was given in a telephone interview with Applicant's representative, Mr. Gordon E. Nelson (Reg. No. 30,093) on 10 September 2009.

3.   The application has been amended, by replacing the claims with the following list of amended claims (starting on the next page):

AMENDED CLAIMS

1. (currently amended) A method of analyzing a ~~reliability of a~~ set of ~~assets~~ more than one asset, the assets in the set being selected from a plurality ~~thereof~~ of assets, historic returns data for the assets of the plurality being stored in storage accessible to a processor, and

the method comprising the steps ~~performed in the processor~~ which the processor has been programmed to perform of:

receiving inputs indicating assets selected for the set and for each selected asset, a desired minimum return;

using the historic returns data to determine a probability that at least one of the ~~selected assets~~ assets in the set will not provide the desired minimum return indicated for the asset; and

outputting the probability as an indication of the reliability of the set of assets.

2. (original) The method set forth in claim 1 wherein

the step of using the historic returns to determine a probability comprises the steps of:

using the multivariate normal distribution for the returns of the assets to determine the probability that each of the selected assets will provide the desired minimum return; and

determining the probability that at least one of the selected assets will not provide the desired minimum return from the probability that each of the selected assets will provide the desired minimum return.

3. (currently amended) The method set forth in claim 2 wherein:

in the step of using the multivariate normal distribution, the probability that each of the selected assets will provide the desired return is determined using ~~the~~ real option values of the assets.

4. (currently amended) A method of optimizing a value of a set of assets over a set of a plurality of scenarios, each scenario in the set of scenarios affecting values of assets in the set of assets, historic returns data for the assets being stored in storage accessible to a processor, and

the method comprising the steps ~~performed in the processor~~ which the processor has been programmed to perform of:

receiving inputs indicating ~~a~~ the set of scenarios ~~for the set of assets~~, each scenario ~~having~~ specifying values which are used in optimizing the set of assets and which vary stochastically between two extremes and each scenario specifying a probability of occurrence for the scenario; and

~~determining~~ optimizing weights of the assets in the set ~~such that the~~ to maximize a worst-case value of the set of assets ~~is optimized~~ over the set of scenarios.

5. **(original)** The method of optimizing set forth in claim 4 wherein:

the worst-case value of the set of assets is the worst-case real option value thereof; and

the values which are used in optimizing are the mean return and the covariance.

6. **(original)** The method of optimizing set forth in claim 4 wherein:

a scenario in the set of scenarios may correspond to the historical returns data for the assets in the set of assets.

7. **(original)** The method of optimizing set forth in claim 4 wherein:

a scenario in the set of scenarios may include certain assets in the set of assets which are highly correlated.

8. **(original)** The method of optimizing set forth in claim 4 wherein:

a scenario in the set of scenarios may correspond to outliers in the historical returns data.

9. **(currently amended)** The method of optimizing set forth in claim 4 further comprising the step of:

receiving inputs indicating additional constraints to which the set of assets being optimized is subject; and

in the step of ~~determining~~ optimizing weights of the assets, ~~determining~~ optimizing the weights subject to the additional constraints.

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10. **(currently amended)** A method of selecting a set of assets from a plurality thereof of the sets of assets and optimizing maximizing the weights of the assets in a value of the selected set of assets, historic returns data for assets being stored in storage accessible to a processor and

the method comprising the steps performed in the ~~which the~~ processor <u>has been programmed to perform</u> of:

1) selecting a <u>the</u> set of assets on the basis of a <u>reliability of the set of assets, the reliability being a</u> probability <u>based on the historic returns data</u> that at least one <u>asset</u> of the <u>set of</u> assets in a selected set will not provide a desired minimum return ~~indicated~~ <u>specified</u> for the asset; and

2) optimizing the weights of the assets in the selected set <u>of assets to maximize the value of the selected set of assets</u>.

11. (currently amended) The method set forth in claim 10 wherein:

the probability that at least one of the assets will not provide the desired minimum return is determined using the real option values for the assets.

12. (currently amended) The method set forth in claim 10 wherein:

optimizing the weights of the assets <u>in the selected set of assets</u> is done using the real option values for the assets.

13. (currently amended) The method set forth in claim 10 wherein:

optimizing the weights of the assets <u>in the selected set of assets</u> is done using robust optimization.

14. (currently amended) The method set forth in claim 13 wherein:

the robust optimization optimizes over a set of user-specified scenarios, each scenario having values which are used in optimizing the <u>selected</u> set of assets and which vary stochastically between two extremes and a probability of occurrence for the scenario.

15. (currently amended) The method set forth in claim 10 wherein:

optimizing the weights of the assets is done subject to a constraint that the probability that the <u>selected</u> set of assets yields a desired minimum return is greater than a user-specified value *a*.

16. (currently amended) The method set forth in claim 15 wherein:

the optimization is done subject to a plurality of constraints *(1..n)*, a constraint c_i specifying that the probability that the <u>selected</u> set of assets yields a desired minimum return that is greater than a user-specified value a_i.

17. (currently amended) The method set forth in claim 15 wherein:

optimizing the weights of the assets in the <u>selected</u> set <u>of assets</u> is done using robust optimization.

18. (previously presented) The method set forth in claim 17 wherein:

the robust optimization optimizes over a set of user-specified scenarios, each scenario including a mean return and a covariance matrix, each of which varies stochastically between two extremes, and a probability of occurrence for the scenario.

19. (currently amended) The method set forth in claim 10 wherein:

the <u>an</u> asset <u>in the selected set of assets</u> may have a negative weight.

20. (currently amended) The method set forth in claim 10 wherein;

the sum of the weights of the assets in the <u>selected</u> set <u>of assets</u> may exceed 1.

21. (currently amended) The method set forth in claim 10 wherein:

optimizing the weight of the assets <u>in the selected set of assets</u> is done subject to one or more additional constraints.

22. (currently amended) The method set forth in claim 21 wherein:

the additional constraint restricts the sum of the weights of the assets belonging to a selected subset of the assets in the <u>selected</u> set <u>of assets</u>.

23. (currently amended) The method set forth in claim 21 wherein:

the additional constraint constrains the weight of an asset such that the amount of the asset in the <u>selected</u> set <u>of assets</u> is above a minimum investment threshold.

24. (currently amended) The method set forth in claim 21 wherein:

the additional constraint limits constrains the set's downside risk <u>of the selected set of assets</u> to be less than a predetermined value *b*.

25. (original) The method set forth in claim 24 wherein;

the additional constraint is computed from the worst draw-down for each asset.

26. (currently amended) The method set forth in claim 24 wherein:

the additional constraint is computed from the set's average return and standard deviation <u>for the selected set of assets</u>.

27. (currently amended) The method set forth in claim 12 wherein:

the method further includes the step of:

receiving an input indicating one of a plurality of objective functions for computing the real option values for the assets; and

in the step of optimizing the weights of the assets <u>in the selected set of assets</u>, the optimization is done using the indicated objective function of the plurality.

28. (previously presented) The method set forth in claim 27 wherein:

in the step of optimizing the weights of the assets, the objective function is adjusted by assigning a premium or a discount to the real option value of one or more of the assets.

29. (previously presented) The method set forth in claim 28 wherein:

the objective function is adjusted to take non-normal returns for the asset into account.

30. (original) The method set forth in claim 28 wherein:

the objective function is adjusted to take liquidity characteristics of the asset into account.

31. (original) The method set forth in claim 28 wherein:

the objective function is adjusted to take tax sensitivity of an asset into account.

32. (original) The method set forth in claim 28 wherein:

the objective function is adjusted to take the length of time an asset has been available into account.

33. (currently amended) The method set forth in claim 12 wherein:

the method further includes the step of:

receiving an input indicating one of a plurality of modes of quantifying the risk of an asset; and

in the step of optimizing the weights of the assets <u>in the selected set of assets</u>, the optimization is done using the indicated mode of the plurality.

34. (previously presented) The method set forth in claim 1 wherein:

the received inputs include a period of time; and

the probability is the probability over the period of time.

35. (previously presented) The method set forth in claim 10 wherein:

the probability is the probability over a period of time.

REASONS FOR ALLOWANCE

1.   The following is an examiner's statement of reasons for allowance:

As per claims 1 and 10, none of the prior art of record, neither alone nor in combination, is deemed to fairly or reasonably teach or suggest the instantly claimed "using the historic returns data to determine a probability that at least one of the assets in the set will not provide the desired minimum return indicated for the asset; and outputting the probability as an indication of the reliability of the set of assets" (or similar language in each of the independent claims), when taken in combination with the other instantly claimed elements of Applicant's invention.

As per claim 4, none of the prior art of record, neither alone nor in combination, is deemed to fairly or reasonably teach or suggest the instantly claimed "receiving inputs indicating the set of scenarios, each scenario specifying values which are used in optimizing the set of assets and which vary stochastically between two extremes and each scenario specifying a probability of occurrence for the scenario; and optimizing weights of the assets in the set to maximize a worst-case value of the set of assets over the set of scenarios," when taken in combination with the other instantly claimed elements of Applicant's invention.

2.   Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to M.N. VON BUHR whose telephone number is (571)272-3755. The examiner can normally be reached on Monday - Friday (9-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571)272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M.N. VON BUHR/
Primary Examiner, Art Unit 2121

MNVB
9/11/09